

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An extrusion molding apparatus for a ceramic molded product, comprising a shaping die for producing a ceramic molded product and a screw extruder having built therein an extruding screw for mixing and leading a ceramic material forward,

wherein said extruding screw includes a pressing screw portion for pressing said ceramic material toward said shaping die and a dispersing screw portion arranged on the same axis as said pressing screw portion adjacently to the forward end of said pressing screw portion,

wherein said pressing screw portion assumes the shape of a ridge spirally formed in an axial direction and includes at least one thread of a first lead having a first lead surface facing forward,

wherein said dispersing screw portion assumes the shape of a ridge spirally formed in an axial direction and includes at least one thread of a second lead having a second lead surface facing forward, and

wherein a gap is formed in a peripheral direction between the rear ends of all of said second lead surfaces at the rear end of said dispersing screw portion and the forward end of said first lead surface at said forward end of said pressing screw portion,

wherein said gap is formed in a circumferential direction such that the rear end of each said second lead surface is circumferentially offset from the forward end of each said first lead surface, and

wherein a rear end of each said thread of said second lead is disposed substantially in a common plane to a leading end of said thread of said first lead so that said pressing screw portion and said dispersing screw portion are not spaced apart in an axial direction of said screw extruder.

2. (Original) An extrusion molding apparatus for a ceramic molded product, according to claim 1, wherein said dispersing screw portion includes a thread of said second lead displaced by 10 to 350 degrees in the peripheral direction of rotation of said extruding screw with reference to the position where said second lead surface at said rear end and any of said first lead surfaces at said forward end of said first lead peripherally coincide with each other.

3. (Original) An extrusion molding apparatus for a ceramic molded product, according to claim 1,

wherein said dispersing screw portion includes two threads of said second leads displaced by 10 to 170 degrees in the peripheral direction of rotation of said extruding screw with reference to the position where any of said second lead surfaces at said rear end and any of said first lead surfaces at said forward end of said first lead peripherally coincide with each other.

4. (Original) An extrusion molding apparatus for a ceramic molded product, according to claim 1,

wherein said dispersing screw portion includes three threads of said second lead displaced by 10 to 110 degrees in the peripheral direction of rotation of said extruding screw with reference to the position where any of said second lead surfaces at said rear end and any of said first lead surfaces at said forward end of said first lead peripherally coincide with each other.

5. (Currently amended) An extrusion molding apparatus for a ceramic molded product, according to claim 1, comprising a shaping die for producing a ceramic molded product and a screw extruder having built therein an extruding screw for mixing and leading a ceramic material forward,

wherein said extruding screw includes a pressing screw portion for pressing said ceramic material toward said shaping die and a dispersing screw portion arranged on

the same axis as said pressing screw portion adjacently to the forward end of said pressing screw portion,

wherein said pressing screw portion assumes the shape of a ridge spirally formed in an axial direction and includes at least one thread of a first lead having a first lead surface facing forward,

wherein said dispersing screw portion assumes the shape of a ridge spirally formed in an axial direction and includes at least one thread of a second lead having a second lead surface facing forward,

wherein a gap is formed in a peripheral direction between the rear ends of all of said second lead surfaces at the rear end of said dispersing screw portion and the forward end of said first lead surface at said forward end of said pressing screw portion,
and

wherein said shaping die is for producing a ceramic molded product having a honeycombed structure in which partitioning walls forming a multiplicity of cells communicating through in an axial direction are arranged in the form of honeycomb, and the thickness of said partitioning walls of said ceramic molded product is not larger than 100 μm .

6. (Currently amended) An extrusion molding apparatus for a ceramic molded product, according to claim 1, comprising a shaping die for producing a ceramic molded product and a screw extruder having built therein an extruding screw for mixing and leading a ceramic material forward,

wherein said extruding screw includes a pressing screw portion for pressing said ceramic material toward said shaping die and a dispersing screw portion arranged on the same axis as said pressing screw portion adjacently to the forward end of said pressing screw portion,

wherein said pressing screw portion assumes the shape of a ridge spirally formed in an axial direction and includes at least one thread of a first lead having a first lead surface facing forward,

wherein said dispersing screw portion assumes the shape of a ridge spirally formed in an axial direction and includes at least one thread of a second lead having a second lead surface facing forward,

wherein a gap is formed in a peripheral direction between the rear ends of all of said second lead surfaces at the rear end of said dispersing screw portion and the forward end of said first lead surface at said forward end of said pressing screw portion,
and

wherein said shaping die is for producing a sheet-like ceramic molded product, and the thickness of said partitioning walls of said ceramic molded product is not larger than 100 μm .

7. (Currently amended) An extrusion molding apparatus for a ceramic molded product, comprising a shaping die for producing a ceramic molded product and a screw extruder having built therein an extruding screw for mixing and leading a ceramic material forward,

wherein said extruding screw includes a pressing screw portion for pressing said ceramic material toward said shaping die and a dispersing screw portion arranged on the same axis as said pressing screw portion adjacently to the forward end of said pressing screw portion,

wherein said pressing screw portion assumes the shape of a ridge spirally formed in an axial direction and includes at least one thread of a first lead having a first lead surface facing forward,

wherein said dispersing screw portion assumes the shape of a ridge spirally formed in an axial direction and includes at least one thread of a second lead having a second lead surface facing forward, and

wherein surface texturing is provided on at least a part of said second lead
the surface facing forward. ~~of said dispersing screw portion has at least a differently shaped portion having a shape different to the surrounding area.~~

8. (Currently amended). An extrusion molding apparatus for a ceramic molded product, according to claim 7, wherein said surface texturing is differently shaped portion is a selected one of a protrusion higher than the surrounding area and a depression deeper than the surrounding area.

Claim 9. (Canceled).

10. (Currently amended) An extrusion molding apparatus for a ceramic molded product, according to claim 7, comprising a shaping die for producing a ceramic molded product and a screw extruder having built therein an extruding screw for mixing and leading a ceramic material forward,

wherein said extruding screw includes a pressing screw portion for pressing said ceramic material toward said shaping die and a dispersing screw portion arranged on the same axis as said pressing screw portion adjacently to the forward end of said pressing screw portion,

wherein said pressing screw portion assumes the shape of a ridge spirally formed in an axial direction and includes at least one thread of a first lead having a first lead surface facing forward,

wherein said dispersing screw portion assumes the shape of a ridge spirally formed in an axial direction and includes at least one thread of a second lead having a second lead surface facing forward,

wherein at least a part of the surface of said dispersing screw portion has at least a differently shaped portion having a shape different to the surrounding area, and

wherein said differently-shaped portion is a through-hole which opens to said second lead surface of said second lead on the one hand and opens to the reverse side of said second lead through said second lead on the other hand.

11. (Original) An extrusion molding apparatus for a ceramic molded product, according to claim 7,

wherein said shaping die is for producing a ceramic molded product having a honeycombed structure in which partitioning walls, forming a multiplicity of cells communicating through in an axial direction, are arranged in the form of honeycomb, and the thickness of said partitioning walls of said ceramic molded product is not larger than 100 μm .

12. (Original) An extrusion molding apparatus for a ceramic molded product, according to claim 7,

wherein said shaping die is for producing a sheet-like ceramic molded product, and the thickness of said ceramic molded product is not larger than 100 μm .

Claims 13 and 14 (Canceled).

15. (Previously presented) An extrusion molding apparatus for a ceramic molded product, according to claim 1,

wherein said pressing screw portion and said dispersing screw portion each have substantially the same outside diameter as defined by an outer radial surface of the threads thereof.

16. (Previously presented) An extrusion molding apparatus for a ceramic molded product, according to claim 1,

wherein said pressing screw portion is substantially continuously threaded along the length thereof.